

Stage 1 Constructability Review Recommendations

Project Manager contacts Area Engineer (Construction Manager) three weeks prior to the Review to coordinate time and places.

Stage 1 Plans are 25% complete. In this review the four criteria are Plans, Site Investigation, Utilities and Right of Way, and General Considerations.

Stage 1 Documents

- **Stage 1 Plans**
- **Environmental Summary (Draft Document)**
- **Description of all permits needed**
- **Firm line/grade/geometric layout**
- **Abbreviated Engineer's Assessment**
- **Design Exception**
- **Mainline Culvert Hydraulics Report**
- **Bridge Hydraulics Report**
- **Bridge Structure Economic Analysis**
- **Cost Estimate**
- **Commitment Report**

Commonly Missed Items to Check

- **The designer should have some indication of what permits will be needed for the contract at 25% plans. If this includes the geometric layout then impacts should be determined. The designer should compile a list of permits which may be pertinent at this time. (USACE, RGP, NWP, etc) Although the designer cannot apply at this point due to the limited amount of details, all permits should be discussed and listed so that additional permits can be added or other permits can be omitted in the future.**
- **The existing right of way (if applicable) should be shown at this point. INDOT should verify that the right of way shown on the 25% plans is actually owned by INDOT. If not, and this does happen, there will be time to remedy this during the new right of way procurement.**
- **Verify the structure of the existing road way, do cores of the existing pavement and shoulder need to be taken? If so, at what locations should cores be taken? The existing pavement may affect MOT, pavement removal, etc.**



Indiana Department of Transportation
Project Constructability Review 1
Stage 1 Plan Review Submission

Primary DES No. _____ Contract No. _____

Route _____ District _____

Work Type _____ RFC Date _____

Project Location _____

Project Description _____

County/City/Town _____ Designer _____

Project Manager _____

Reviewed by _____ Title _____

Date _____

	Y	N	NA	Note	Flag
4. Plans					
1. Do plans accurately show existing field conditions?					
* 2. Are control points included and are accurate to match the work to existing conditions?					
* 3. Are control points noted from project limits to project limits?					
* 4. Control points should be on both sides of a structure.					
* 5. Have all structures been evaluated for prestressed concrete vs. steel beams?					
* 6. Permits for overlength loads to the job feasible?					
* 7. Check out haul routes through metropolitan areas – restrictions?					
* 8. Is there adequate structure vertical clearance over entire project travelway?					
* 9. Can overloads/widths be hauled through job?					
* 10. Are truck turnaround areas available?					
* 11. Can Bridge large or heavy members be transported legally without limitations on existing roads, bridges, or hauling equipment?					
* 12. Are there any limitations in erecting large (particularly long) heavy bridge members? Crane size? Crane transporting? Crane erecting positions? Costs? Project structure location?					
* 13. Is minimum bridge vertical clearance shown on the plans?					

Project Constructability Review (Stage 1)

* - Item related to consultant designer evaluation

Y - Yes, **N** - No, **NA** - Not Applicable, **Note** - See note number, **Flag** - Item requires priority attention

	Y	N	NA	Note	Flag
* 14. Is all previous repair work noted on the plans or as-built?					
* 15. Do the channel change layout details appropriately tie into the existing channel and surrounding topography?					
* 16. Are the bridge pier and abutment locations designed such that they do not conflict with any existing underground utilities or is relocation of the utility planned?					
* 17. Are the bridge pier and abutment locations designed such that they do not conflict with any existing bridge elements that must remain intact during construction?					
* 18. Does the bridge clear roadway width and location of bridge ails accommodate intersection sight distance for any adjacent intersecting roadways?					
* 19. Does proposed drainage function during construction phases?					
* 20. Is storm sewer design appropriate for the project?					
* 21. Has offsite drainage been considered (beyond construction limits)?					
B. Site Investigation					
* 1. Is location survey complete; includes appropriate horizontal & vertical control?					
* 2. Are the project limits appropriate?					
* 3. Are the mainline culverts located appropriate for the project and has construction phasing been considered?					
* 4. Is existing drainage affected by the temporary pavement?					
* 5. Can overloads/widths be hauled through job?					
* 6. Was construction loading on bridge decks considered during each phase?					
* 7. What are the locations of Geotech investigations? When were they taken?					
* 8. Has Geotech taken cores of the existing pavement and shoulder to verify the structure of the existing roadway? Where were cores taken?					
C. Utilities and R/W					
* 1. Is utility location & identification in progress?					
* 2. Is subsurface utility exploration (SUE) utilized as appropriate?					
* 3. Is existing right-of-way and property line determination complete?					
* 4. Check for overhead utility conflicts.					
* 5. Is there enough room for all permanent retaining wall elements to fit within the proposed R/W?					
* 6. Do the structures fit in the R/W?					
* 7. Is there enough work room to build the structures on the R/W?					
* 8. Do the structures fit in the R/W?					
* 9. Is there enough work room to build the structures on the R/W?					

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[illegible]

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